

Docket No.: 6920/1029-US0  
(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Hirotumi Ito et al.

Application No.: 10/595,622

Confirmation No.: 3648

Filed: June 8, 2006

Art Unit: 1793

For: CATALYST, PROCESS FOR PREPARING  
THE CATALYST AND PROCESS FOR  
PRODUCING LOWER HYDROCARBON  
USING THE CATALYST

Examiner: Elizabeth D. Wood

DECLARATION PURSUANT TO 37 CFR §1.132

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sirs:

I, Atsushi Okita, hereby declare as follows:

I am a citizen of Japan and over 21 years of age. I am a graduate of Tokyo Institute of Technology, located on 4529 Nagatsuda, Midori-ku, Yokohama, Kanagawa, Japan and received a degree in Catalyst Chemistry from the Department of Environmental Chemistry and Engineering. I have been employed by JGC Corporation since April 01, 2005 and I have been conducting research in the field of olefin catalysts for five (5) years. I have reviewed the Office Action mailed January 13, 2010 and the references cited therein. It is my understanding that the Examiner has rejected the claims of the application based on his belief that combining the teachings of Japanese Laid-Open Patent Application No. 61-58812 with U.S. Patent No. 4,544,793 to Okada.

I have conducted experiments which demonstrate that the features of the present invention differ significantly from the features obtainable by the techniques disclosed by the Japanese Laid-Open Patent Application No. 61-58812 patent in combination with and U.S.

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4,544,793 to Okado. In fact, these experiments demonstrate that the catalyst of the present invention cannot be produced from the combination of Japanese Laid-Open Patent Application No. 61-58812 ('812 patent) and US 4,544,793 to Okado.

In the Experimentation Report 1 (Exhibit 1) provided in response to the January 13, 2010 Office Action, Applicant provided two different methods of determining the percentage of zeolite seed crystal present in the mixture that related to the process of the instant invention. With respect to the instant claim example, the percentage of zeolite was calculated as a percentage of zeolite catalyst which is synthesized without adding seed crystals. In contrast in the comparative example, the percentage of seed crystal was calculated as a percentage of the total material mixture. The amount of zeolite crystal used in the instant example calculated in the same manner as the comparative example, would be 3% of raw mixture.

The comparative example (Experimental Report 1, pg 2) employs a zeolite seed crystal that has a particle diameter larger than 0.5 $\mu$ m. Even at inexact quantities relative to the instant example, it is clear that the resulting product of the comparative example is significantly larger than the instant example. The instant claims yield a prepared catalyst that has a particle size between 0.02 and 2.0 $\mu$ m, while the comparative example produces a catalyst having a particle size of 5.0 $\mu$ m. See Experimental Report 1, pg 2, ¶¶6-7.

I further declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements are made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the instant application or any patent issued thereupon.

Feb. 1, 2011  
Date

Atsushi Okita  
Atsushi Okita